

**BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2020-1-E**

In the Matter of)	
Annual Review of Base Rates)	DIRECT TESTIMONY OF
for Fuel Costs for)	JASON D. MARTIN FOR
Duke Energy Progress, LLC)	DUKE ENERGY PROGRESS, LLC
)	

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Jason D. Martin and my business address is 40 West Broad Street, Suite 690,
3 Greenville, SC 29601.

4 **Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

5 A. I am Director of Strategy, Policy, and Strategic Investment for South Carolina at Duke
6 Energy Corporation. I am responsible for the development and execution of strategy and
7 policy support related to distributed energy technology for Duke Energy's South Carolina
8 retail franchises, including Duke Energy Progress, LLC ("DEP" or the "Company") and
9 Duke Energy Carolinas, LLC ("DEC," together with DEP, the "Companies"). This
10 includes evaluation of legislation and regulation, and implementation of customer
11 programs such as those associated with Act 236 (the "Act"), the South Carolina Distributed
12 Energy Resource Act of 2014.

13 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
14 **WORK EXPERIENCE.**

15 A. I received a Bachelor of Science degree in Electrical and Computer Engineering at North
16 Carolina State University. I have been employed at Duke Energy since 1987 working in
17 the areas of Engineering, Customer Services, Large Account Management, and Distributed
18 Energy Technologies.

19 **Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION BEFORE?**

20 A. Yes. I testified before this Commission in DEC's 2018 fuel costs proceeding in Docket
21 No. 2018-3-E, DEP's 2019 fuel costs proceeding in Docket No. 2019-1-E, and DEC's 2019
22 fuel costs proceeding in Docket No. 2019-3-E.
23

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide support for the Distributed Energy Resource Program (“DERP”) costs that are incorporated into the proposed fuel factors prepared by Witness Harrington. I will describe the nature of costs filed as well as any changes made to the DERP portfolio since the 2019 fuel proceeding.

Q. PLEASE DESCRIBE THE LEVELS OF SOLAR ADOPTION DEP HAS EXPERIENCED THROUGH COMPLIANCE WITH ACT 236.

A. Since January 1, 2015 DEP has seen significant growth in solar adoption as a result of implementing the incentives and programs for compliance with Act 236. The results of the implementation are shown below in Table 1. The Company has encouraged solar adoption through the Net Energy Metering incentive, Solar Rebate Program, and other DERP efforts discussed later in my testimony. As of March 2020 the Company has met the renewable generation goals under Act 236.

Table 1: DEP Solar Adoption by Implementing Act 236, as of March 1, 2020¹

		ACT 236 Goal	Capacity Installed	% of Goal
Tier I	Utility Scale Solar (1MW – 10MW)	13	15	115%
Tier II	Customer Scale Solar (<1MW) ²	13	7.5	267%
	Small Scale Solar (<20kW)	3	10.2	340%

Notes

1. All values in MW-AC

2. Customer Scale Solar Goal is inclusive of Small Scale Solar Goal

1 **Q. PLEASE DESCRIBE THE DERP COSTS THAT ARE INCLUDED IN THE**
2 **REVIEW, ESTIMATED, AND BILLING PERIODS.**

3 A. Pursuant to Commission Order No. 2015-515, the Company offers its customers a variety
4 of programs to support solar development. As a result, the Company incurred DERP
5 incremental and avoided costs totaling \$3,112,295 in the period from March 1, 2019
6 through February 29, 2020 (the “review period”); anticipates incurring \$1,567,860 during
7 the period March 1, 2020 through June 30, 2020 (the “estimated period”); and projects to
8 incur \$6,198,610 in the period July 1, 2020 through June 30, 2021 (the “billing period”).

9 These costs represent the avoided and incremental costs associated with the
10 Company’s approved DERP offerings, including 1) Purchased Power Agreements
11 executed to fulfill the Company’s utility-scale solar goals under Act 236; 2) Distributed
12 Energy Resource (“DER”) NEM Incentive; 3) Solar Rebate Program; 4) Carrying Costs on
13 Deferred Solar Rebate Amounts; 5) Shared Solar Program; 6) NEM Avoided Capacity
14 Costs; 7) NEM Meter Costs; and 8) General and Administrative Expenses, including
15 incremental labor costs as a direct result of DERP, IT and billing enhancements, and other
16 administrative costs associated with delivering these new programs to customers. Table 2
17 is an itemization of actual and expected DERP costs.

Table 2: DEP DERP Cost Summary - Review, Estimated, and Billing Periods

Cost Type	Review Period	Forecast Period	Billing Period
	3/1/19-2/29/20	3/1/20-6/30/20	7/1/20-6/30/21
DERP Incremental Costs			
Purchased Power Agreements	\$ 54,831	\$ 14,797	\$ 44,279
DER NEM Incentive	1,061,763	618,094	3,392,178
Solar Rebate Program - Amortization	359,918	188,483	565,450
Solar Rebate Program - Carrying Costs	582,774	159,392	453,850
Shared Solar Program	30,956	10,598	31,471
NEM Avoided Capacity Costs	33,729	19,364	67,224
NEM Meter Costs	112,167	45,022	161,262
General and Administrative Expenses	272,437	87,335	245,433
Interest on under-collection due to cap	245	82	245
Total DER Incremental Costs	\$ 2,508,819	\$ 1,143,168	\$ 4,961,392
DERP System Avoided Cost - Energy & Capacity			
Purchased Power Agreements	\$ 556,454	\$ 372,122	\$ 1,079,904
Shared Solar Program	47,022	52,569	157,313
Total DERP Avoided Costs	\$ 603,476	\$ 424,692	\$ 1,237,218
Total Incremental and Avoided Cost	\$ 3,112,295	\$ 1,567,860	\$ 6,198,610

Sources

Incremental Costs: Harrington Exhibit 9 & 11

Avoided Costs: Harrington Exhibit 13 & 14

Q. PLEASE DESCRIBE THE COMPANY'S DER NEM INCENTIVE AND COSTS.

A. The DER NEM Incentive is a credit available to eligible net energy metering customer-generators that enables the customer-generator to receive full retail rate compensation for each kilowatt-hour (kWh) generated by their solar facility.

The DER NEM Incentive approximates the difference between (a) the value of a NEM Distributed Energy Resource, as computed using the methodology approved in Docket No. 2014-246-E, and (b) the utility's retail rate for that customer. Settling Parties in Docket No. 2014-246-E agreed that the DER NEM Incentive shall be treated as an incremental cost, as defined in S.C. Code Ann. § 58-39-140, effectively socializing the cost of the DER NEM Incentive to all retail customers as a component of the utilities' respective

DER programs. Act 62 removed the statutory capacity cap on NEM as set forth in Act 236 and made net energy metering available to all customer-generators who apply before June 1, 2021, according to all the terms and conditions provided to all parties in Commission Order No. 2015-194.

As shown on the “DER NEM Incentive” line in Table 2 above, the total costs associated with this incentive are expected to grow significantly in the Billing Period. This growth is related to an expected increase in customers who have elected service under Rider RNM due to the availability of the Solar Rebate Program and the NEM incentive, discussed below.

Q. PLEASE DESCRIBE THE GROWTH OF CUSTOMER PARTICIPATION IN NET ENERGY METERING.

A. Participation in net energy metering has increased significantly since 2015 as a result of the decrease in the acquisition costs of solar, in addition to the availability of the Company’s Solar Rebate Program and the NEM Incentive. On May 16, 2019, Act 62 was signed into law, which removed the 2% NEM capacity limit and extended provisions of NEM pursuant to Order No. 2015-194, requiring the Company make NEM available to all customer-generators who apply after May 16, 2019 and before June 1, 2021. Table 3 details total NEM participation as of February 29, 2020.

Table 3: DEP Net Energy Metering – Total Participation

Rider RNM	As of 2/29/2020	
	Number of Applications	Capacity in MW (AC)
Applications Approved	1,485	19
Applications Withdrawn	12	0.12
In Process and Installed	1,473	18.88
Installed	1,361	17.71
In Process	112	1.17

Q. PLEASE DESCRIBE THE GROWTH OF THE DER NEM INCENTIVE.

A. The growth of the DER NEM Incentive is attributed to an increase in interconnected, operational facilities participating in net metering during the review, estimated, and billing periods. Table 4, below, depicts the number of customers (and the associated kilowatts (kW-AC)) who have or are expected to energize their solar facilities and participate in net metering.

Table 4: DEP Net Energy Metering Capacity Connected - Review, Estimated, and Billing¹

Rider RNM and Rider NM-SC	Review Period	Estimated Period	Billing Period
	3/1/19-2/29/20	3/1/20-6/30/20	7/1/20-6/30/21
Capacity (kW-AC)	21,877	23,124	27,375
# of Customers	1,517	1,612	2,424

Notes:

1. These values represent cumulative capacity and number of customers on the last day of each period.

Q. COMMISSION ORDER 2015-194 REQUIRES THAT THE VALUE OF NEM DISTRIBUTED ENERGY RESOURCES IS COMPUTED ANNUALLY. WHAT IS THE 2020 VALUE AND HOW DID YOU ARRIVE AT THAT NUMBER?

A. Through applying the avoided cost methodology and rates recently approved by the Commission in Order Nos. 2019-881(A) and 2020-315(A) (issued on January 2, 2020 and April 17, 2020, respectively), as well as updated input assumptions, the Company has updated the 2020 value of NEM Distributed Energy Resources to \$0.02445 per kWh for Schedules RES and R-TOUD, \$0.02443 for Schedule SGS, and \$0.02446 for all other schedules. Table 5, below, lists the components used to determine the value of NEM Distributed Energy Resources and their value. The calculation is consistent with the methodology approved in Order No.

2015-194. The methodology includes all categories of potential benefits or costs to the utility system that are capable of quantification or possible quantification in the future.

Table 5: Value of NEM Distributed Energy Resource, by Component

Components of NEM Distributed Energy Resource Value	Component Value (\$/kWh) Residential PV ¹	Component Value (\$/kWh) SGS PV ¹	Component Value (\$/kWh) Large PV ¹
Marginal Energy Cost	\$0.024878	\$0.024890	\$0.024894
Marginal Capacity Cost	\$0.001661	\$0.001634	\$0.001657
Ancillary Services	(\$0.002390)	(\$0.002391)	(\$0.002391)
Transmission and Distribution ("T&D") Capacity	\$0.000000	\$0.000000	\$0.000000
Avoided Criteria Pollutants ²	\$0.000028	\$0.000027	\$0.000025
Avoided CO2 Emission Cost (currently zero)	\$0.000000	\$0.000000	\$0.000000
Fuel Hedge ³	\$0.000000	\$0.000000	\$0.000000
Utility Integration & Interconnection Costs	\$0.000000	\$0.000000	\$0.000000
Utility Administration Costs	\$0.000000	\$0.000000	\$0.000000
Environmental Costs	\$0.000000	\$0.000000	\$0.000000
Subtotal	\$0.024177	\$0.024160	\$0.024185
Line Losses ⁴	\$0.000272	\$0.000272	\$0.000273
Total Value NEM Distributed Energy Resource	\$0.024449	\$0.024431	\$0.024459

1 "Residential PV" refers to a load shape reflecting generation installed by a residential customer. "SGS PV" refers to a load shape reflecting generation installed by a small commercial/industrial customer served under Small General Service Schedule SGS. "Large PV" refers to a load shape reflecting generation installed by a customer with higher consumption requirements and applies to all other nonresidential schedules. For the first time, the Company has separated the values for residential customers ("Residential PV") and small commercial/industrial customers ("SGS PV") as a result of available actual metered solar load profile data for the residential class. The Company continues to utilize third-party solar load profile data for non-residential customers.

2 Avoided Criteria Pollutants reflects NOx and SOx that have been separately identified from approved marginal energy costs.

3 Pursuant to the Settlement Agreement reached in DEP's 2016 annual fuel proceeding (Docket No. 2016-3-E), the Company has calculated the hedge value and determined that no fuel hedge exists; therefore, the value is zero.

4 Line loss factors are 1.281% for on-peak marginal energy, 1.268% for off-peak marginal energy and 1.874% for marginal capacity per DEP's updated 2018 line loss analysis based upon 2018 cost of service.

Q. PLEASE EXPLAIN WHY SOME OF THE COMPONENTS ARE VALUED AT ZERO.

A. The Company has identified the benefits or costs of several of the components of the Value of NEM DER as zero either because insufficient data and analysis exists to quantify the cost or benefit of that component or because the Company believes the actual numerical value of that component is zero.

1 **Q. DOES DEP ROUTINELY REVIEW THE COST AND BENEFIT COMPONENTS**
2 **OF THE VALUE OF NET ENERGY METERING (“NEM”) OF DISTRIBUTED**
3 **ENERGY RESOURCES (“DER”) CALCULATION?**

4 A. Yes. As stated earlier, the Company has updated the Value of NEM DER calculation based
5 on the recently-approved avoided cost methodology and avoided cost rates. Additionally,
6 as the amount of installed customer-owned generation increases, it is important that the
7 Company continually monitors its impact to ensure safe and reliable grid operations.
8 Through this monitoring and analysis of the impact of NEM DER on the Company’s
9 system, new costs and benefits are identified. Those identified costs and benefits of NEM
10 DER are then incorporated into the the Value of NEM DER calculation in the next year’s
11 fuel case.

12 **Q. PLEASE DESCRIBE EXHIBIT 1 TO YOUR TESTIMONY.**

13 A. Martin Exhibit 1 provides a redline of the Company’s proposed 2020 net metering rider,
14 Rider RNM, illustrating changes from the previous tariff. The only substantive change to
15 the tariff is the updated value of NEM Distributed Energy Resources.

16 **Q. PLEASE DESCRIBE THE STATUS OF THE COMPANY’S SOLAR REBATE**
17 **PROGRAM.**

18 A. The Company’s solar rebate program was implemented to assist the Company in meeting
19 its Customer Scale solar requirement (facilities 1,000 kW and less) under Act 236. The
20 Company has made available two solar rebate programs for its customers: the Small Solar
21 Rebate Program and the Large Solar Rebate Program. Both provide a qualified customer
22 with a rebate of \$1.00 per watt-dc, and \$1.50 per watt-dc for non-profit organizations, upon
23 successful energization of a solar facility that conforms to the sizing requirements outlined

in Act 236. As shown in Table 6, below, interest in the solar rebate, as measured by solar rebate applications received, has exceeded available capacity per Act 236 goals.

Table 6: DEP Solar Rebate Program Capacity Status, as of March 1, 2020

Solar Facility Size	ACT 236 Goal	Rebate Applications Received	Rebate Applications Accepted	Rebate Applications Paid
"Small" - Up to 20kW-AC	At least 3,250 kW	3,910 kW	3,850 kW	92%
"Large" - 20.01kW-AC - 1,000kW-AC	9,750 kW	12,250 kW	9,150 kW	
Total	13,000 kW	15,800 kW	13,000 kW	

*All Values in kW-AC

As a result of receiving applications in excess of available capacity, the Company created a waiting list for customers to be utilized as additional capacity becomes available due to a project withdrawing or no longer meeting the criteria to receive a rebate. Since the last fuel case, DEP has had some projects withdraw, which allowed applications from the waiting list to be accepted. As of February 29, 2020, 200 kW of capacity was available for rebates.

Q. PLEASE DESCRIBE THE DERP COSTS ASSOCIATED WITH THE COMPANY'S SOLAR REBATE PROGRAM.

A. The incremental costs associated with the Solar Rebate Program and included in this filing are the amortization of rebates paid, carrying costs on deferred amounts, and general and administrative expenses required to manage the program, as shown in Table 2. In Order No. 2019-341, Docket No. 2018-318-E, the Commission approved utilization of \$6 million dollars of the excess deferred income tax balance to offset \$6 million dollars of prospective amortization on unamortized DERP solar rebates. These values in Table 2 reflect rebate

1 amortization amounts and carrying cost amounts which have been adjusted as prescribed
2 in Order No. 2019-341.

3 **Q. PLEASE PROVIDE AN OVERVIEW AND STATUS OF THE COMPANY'S**
4 **SHARED SOLAR PROGRAM.**

5 A. The Company's Shared Solar Program, which launched in July 2018, is a means for retail
6 customers to subscribe to and share in the economic benefits of one renewable energy
7 facility. Customers are able to apply to the program using an online application which
8 shows real-time capacity available in the program and assists them in determining their
9 appropriate subscription size. Once enrolled, in addition to their regular energy bill,
10 participants also pay a monthly shared solar subscription fee. That fee funds their share of
11 supporting a centrally-located solar energy facility. In exchange, they receive a monthly
12 energy credit from the Company equal to the amount of solar energy produced by their
13 share of the solar facility. In order to increase accessibility to the program, DEP also offers
14 a low-moderate income (LMI) customer program, through which DEP will waive the
15 application fee and initial subscription charge (a \$120 value) for 200 LMI qualified
16 customers.

17 The Company dedicated 1,000 kW of a Purchased Power Agreement (entered into
18 pursuant to the utility-scale goals of Act 236) to the Shared Solar Program. Table 7 below,
19 provides participation details for the program.
20
21
22
23

Table 7: DEP Shared Solar Program Status, as of March 1, 2020¹

Program Type	Total Available Capacity (kW-AC)	Number of Customers Subscribed	Total kW-AC Subscribed	% Subscribed
Standard Offering	600	82	600	100%
Low-Moderate Income (LMI)	400	84	168	42%

Notes

1. This includes both active customers and customers who have submitted an application to reserve their capacity but are either waiting for their income to be verified (LMI) or completing payment of their application and initial subscription charges (standard offering).

Q. WHAT COMMUNICATION AND OUTREACH HAS TAKEN PLACE TO INFORM, EDUCATE, AND SOLICIT CUSTOMERS TO PARTICIPATE IN THE SHARED SOLAR PROGRAM?

A. The Company has utilized a variety of marketing and communications channels to inform and educate LMI customers about the Shared Solar Program. These include campaigns using email, direct mail, and outbound calling, as well as event outreach, website banners, and newsletters. As part of these campaigns, the Company has sent over 26,000 email and direct mail communications to low to moderate income customers, from March 2019 - February 2020. In addition, the Company held fifteen events in 2019 to inform customers specifically about the LMI program. Additionally, in the Fall of 2019, the Company ran an advertisement in FreshEBT mobile app used by SNAP Food Stamp and TANF Cash Benefits recipients, which was viewed by 19,000 users. Through the communications explained above and interactions with customers, the Company continues to learn the most effective methods to encourage customer participation in the DEP Shared Solar Program. As shown in Table 7 above, the LMI program is not yet fully subscribed. However, the Company continues to refine customer communications and marketing in order to both raise customer awareness of solar and educate customers about the Shared Solar Program.

1 Methods of communication which have shown to be most impactful in obtaining customer
2 enrollments, such as mobile app advertisement and outbound calling, will be utilized more
3 in the future. The Company also received Commission approval recently for program
4 changes to provide more opportunity for LMI customers to enroll in its Shared Solar
5 program.

6 **Q. PLEASE DESCRIBE THE DERP COSTS ASSOCIATED WITH THE**
7 **COMPANY'S SHARED SOLAR PROGRAM.**

8 A. The cost associated with the Shared Solar Program, as set forth in Table 2 include the
9 following incremental cost components: the amount of subsidy utilized to lower
10 subscription fees for the program, general and administrative costs of the program, and
11 costs of Shared Solar purchased power agreements in excess of avoided cost. Table 2 also
12 includes the following avoided costs: avoided cost amounts paid for the purchase of power
13 from participants in the program.

14 **Q. PLEASE DESCRIBE THE RESULTS OF THE COMPANY'S REQUEST FOR**
15 **PROPOSALS OF UTILITY-SCALE SOLAR FACILITIES AND THE**
16 **ASSOCIATED DERP COSTS.**

17 A. The Company has executed two PPAs totaling 15,000 kW (AC), with 1,000 kW dedicated
18 to the Shared Solar Program. The first facility became operational in December 2017 and
19 the second facility became operational in March 2020. Table 2 sets forth the incremental
20 and avoided costs associated with these PPAs.

21 **Q. PLEASE DESCRIBE THE COMPANY'S EFFORTS TO COMMUNICATE WITH**
22 **STAKEHOLDERS ABOUT DER PROGRAMS AND PROGRAM CHANGES IN**
23 **THE PAST YEAR.**

1 A. Since the Commission approved the Company's DER Program application in 2015, the
2 Company has utilized various communication and outreach tools to ensure that solar
3 stakeholders and retail customers have access to information about the Company's
4 programs and are able to communicate with representatives from the Company about the
5 programs. For example, the Company has: 1) conducted quarterly DER Collaborative
6 meetings with a diverse group of stakeholders representing the environmental community,
7 low income community, solar installers, solar developers, and regulators; 2) provided a
8 summary of net metering adoption on the Duke Energy website; 3) held a number of events
9 and marketing campaigns for the Shared Solar Program (see additional detail above); and
10 4) provided call center support to retail customers and solar installers via its Renewable
11 Service Center, which is staffed with approximately twenty professionals. The Company
12 uses these outreach efforts as well as regular communication to keep stakeholders and retail
13 customers informed of the status of the program offerings and other developments related
14 to its DER programs.

15 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

16 A. Yes.

RENEWABLE NET METERING RIDER RNM-~~89~~AVAILABILITY

Available to residential and nonresidential Customers receiving concurrent service from Company, on a metered rate schedule, except as indicated under General Provisions. A customer-generator is a owner, operator, or lessee of an electric generation unit that generates or discharges electricity from a renewable energy resource, including an energy storage device configured to receive electrical charge solely from an onsite renewable energy resource. The renewable net energy metered (NEM) generation, which includes a solar photovoltaic; solar thermal; wind powered; hydroelectric; geothermal; tidal or wave energy; recycling resource; hydrogen fueled or combined heat and power derived from renewable resources; or biomass fueled generation source of energy, is installed on Customer's side of the delivery point, for Customer's own use, interconnected with and operated in parallel with Company's system. The generation must be located at a single premises owned, operated, leased or otherwise controlled by Customer.

Service under this Rider is closed to new participants on and after June 1, 2021. Participants served under this Rider prior to May 16, 2019, and subsequent owners of the customer-generator facility, shall remain eligible for service under this Rider until December 31, 2025, when an alternate tariff must be selected. Participants and subsequent owners of the customer-generator facility applying for service under this Rider on and after May 16, 2019 and prior to June 1, 2021 shall remain eligible for service under this Rider until May 31, 2029, when an alternate tariff must be selected. Customers requesting NEM service on and after June 1, 2021, will receive service in accordance with the NEM tariff in effect at that time.

GENERAL PROVISIONS

1. To qualify for service under this Rider, Customer must comply with all applicable interconnection standards and must provide, in writing, the Nameplate Capacity of Customer's installed renewable generation system. Any subsequent change to the Nameplate Capacity must be provided by Customer to Company in writing by no later than 60 days following the change.
2. To qualify for service under this Rider, a residential customer may be served on an approved residential rate schedule, but may not be served under Rider NM. The Nameplate Capacity of Customer's installed generation system and equipment must not exceed 20 kW AC.
3. To qualify for service under this Rider, a nonresidential customer may be served on an approved general service rate schedule, but may not be served on Schedules SGS-TES, TSS, TFS, LGS-RTP, LGS-CUR-TOU, CSG, CSE, GS, SFLS, SGS-TOU-CLR or Rider NM. The Nameplate Capacity of Customer's installed renewable generation system and equipment must not exceed 1,000 kW AC or 100% of Customer's contract demand which shall approximate Customer's maximum expected demand.
4. If Customer is not the owner of the premises receiving electric service from Company, Company shall have the right to require that the owner of the premises give satisfactory written approval of Customer's request for service under this Rider.
5. All environmental attributes, including but not limited to "renewable energy certificates" (RECs), "renewable energy credits" or "green tags", associated with the generation system shall be conveyed to Company until billing of a Distributed Energy Resource Program Rider DERP Charge is discontinued on all customer bills. Customer certifies that the environmental attributes have not and will not be remarketed or otherwise resold for any purpose, including another distributed energy

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resource standard or voluntary purchase of renewable energy certificates in South Carolina or in any other state or country for the Contract Period and any successive contract periods thereto.

6. If the electricity supplied to Customer by Company exceeds the electricity delivered to the grid by the customer-generator during a monthly billing period, the customer-generator shall be billed for the net electricity in kilowatt hours (kWh) supplied by Company plus any demand or other charges under the applicable rate schedule or riders.
7. Electricity delivered to the grid by Customer's renewable generation that exceeds the electricity delivered by Company during a monthly billing period is defined as Excess Energy. When used in conjunction with a time of use schedule, the TOU periods shall be specified in the applicable schedule and any Excess Energy shall apply first with the Excess Energy generated On-Peak kWh offsetting On-peak usage and then offsetting Off-peak usage. Any excess Off-Peak kWh shall only apply against Off-peak kWh usage. Any Excess Energy not used in the current month to offset usage shall carry forward to the next billing month.
8. Excess Energy shall be used to reduce electricity delivered and billed by Company during the current or a future month, except that for the March billing period any carry-over shall be compensated as described in the RATE paragraph below. In the event Company determines that it is necessary to increase the capacity of facilities beyond those required to serve Customer's electrical requirement or to install a dedicated transformer or other equipment to protect the safety and adequacy of electric service provided to other customers, Customer shall pay the estimated cost of the required transformer or other equipment above the estimated cost which Company would otherwise have normally incurred to serve Customer's electrical requirement, in advance of receiving service under this Rider.
9. The rates set forth herein are subject to Commission Order No. 2015-194, issued in Docket No. 2014-246-E pursuant to the terms of S.C. Code § 58-40-20(F)(4). Eligibility for this rate will terminate as set forth in that Order, and otherwise as specified above. The value of NEM generation eligible for this Rider shall be computed using the methodology contained in Commission Order No. 2015-194, in Docket No. 2014-246-E, and shall be updated annually by Company. The value of NEM generation for 2019 is ~~\$0.05033~~\$0.02445 per kWh for Schedules RES and R-TOUD, ~~\$0.05032~~\$0.02443 for Schedule SGS and ~~\$0.05024~~\$0.02446 for all other schedules.

RATE

All provisions of the applicable schedule and other applicable riders will apply to service supplied under this Rider, except as modified herein. For any bill month during which the Energy Charges are a net credit, the respective Energy Charges for the month shall be zero. Credits shall not offset the Basic Facilities Charge or the Demand Charge (if applicable). In addition to all charges in the applicable rate schedule for Customer's net electrical usage, the following credit may be applicable annually:

Annual Credit for Excess Generation –

If Customer has Excess Energy after offsetting usage as of the date of the March billing, Company shall pay Customer for the amount of the accumulated Excess Energy times a rate of ~~\$0.04290~~\$0.03360 per kWh, after which the amount of Excess Energy shall be set to zero.

MINIMUM BILL

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The monthly minimum bill for customers receiving service under this Rider shall be no less than Basic Facilities Charge from the applicable rate schedule and riders plus, if applicable, any of the following Charges: the Demand Charge, the Off-peak Excess Demand Charge, and the Extra Facilities Charge.

METERING REQUIREMENTS

Company will furnish, install, own and maintain a billing meter to measure the kilowatt demand delivered by Company to Customer, and to measure the net kWh purchased by Customer or delivered to Company. For renewable generation capacity of 20 kW AC or less, the billing meter will be a single, bi-directional meter which records independently the net flow of electricity in each direction through the meter, unless Customer's overall electrical requirement merits a different meter. For larger renewable generation capacities, Company may elect to require two meters with 15-minute interval capabilities to separately record Customer's electrical consumption and the total generator output, which will be electronically netted for billing. Customer grants Company the right to install, operate, and monitor special equipment to measure Customer's generating system output, or any part thereof, and to obtain any other data necessary to determine the operating characteristics and effects of the installation. All metering shall be at a location that is readily accessible by Company.

SAFETY, INTERCONNECTION AND INSPECTION REQUIREMENTS

This Rider is only applicable for installed renewable generation systems and equipment that complies with and meets all safety, performance, interconnection, and reliability standards established by the Commission, the National Electric Code, the National Electrical Safety Code, the Institute of Electrical and Electronic Engineers, Underwriter's Laboratories, the Federal Energy Regulatory Commission and any local governing authorities. Customer must comply with all liability insurance requirements of the Interconnection Standard.

POWER FACTOR

Customer's renewable generation must be operated to maintain a 100% power factor, unless otherwise specified by Company. When the average monthly power factor of the power supplied by Customer to Company is other than 100%, the Low Power Factor Adjustment stated in Company's Service Regulations may be applicable. Company reserves the right to install facilities necessary for the measurement of power factor. Company will not install such equipment, nor charge a Low Power Factor Adjustment if the renewable generation system is less than 20 kW AC and uses an inverter.

CONTRACT PERIOD

Customer shall enter into a contract for service under this Rider for a minimum original term of one (1) year, and shall automatically renew thereafter, except that either party may terminate the contract after one year by giving at least sixty (60) days prior notice of such termination in writing.

Company reserves the right to terminate Customer's contract under this Rider at any time upon written notice to Customer in the event that Customer violates any of the terms or conditions of this Rider, or operates the renewable generation system and equipment in a manner which is detrimental to Company or any of its customers. In the event of early termination of a contract under this Rider, Customer will be required to pay Company for the costs due to such early termination, in accordance with Company's South Carolina Service Regulations.